

tain was struck by lightning and shivered to atoms. A house near by was entirely demolished by the flying fragments of rock. Several houses were also struck by lightning, killing one person and fatally injuring four others.

Ravanna, Mercer county, Missouri.—Three men were killed by lightning near this place on the 14th.

Norwich, Connecticut.—At 5.30 p. m., of the 22d, a barn was struck by lightning and consumed by fire in a few minutes.

TEMPERATURE OF WATER.

The temperature of water as observed in rivers and harbors at the Signal-Service stations, during June, 1883, with the average depth at which the observations were made, are given in the table below. Owing to the breakage of the instruments, observations were not made at Milwaukee, Wisconsin, from 3d to 21st, inclusive, and at Wilmington, North Carolina, from 9th to 21st:

Temperature of Water for June, 1883.

STATION.	Temperature at bottom.		Range.	Average depth, feet and inches.	Mean temperature of the air at station.
	Max.	Min.			
Atlantic City, New Jersey.....	71.0	58.6	13.0	5 0	67.2
Alpena, Michigan.....	67	53.8	13.2	11 9	58.7
Augusta, Georgia.....	87.5	78.3	9.2	7 6	79.0
Baltimore, Maryland.....	78	66	12.0	9 6	74.6
Block Island, Rhode Island.....	63.5	53.1	10.4	8 10	64.4
Boston, Massachusetts.....	64.7	57.0	7.7	20 5	63.8
Buffalo, New York.....	70.2	55	15.2	10 8	69.0
Burlington, Vermont.....	60.6	55	5.6	20 9	58.1
Cedar Keys, Florida.....	88.8	82.6	6.2	12 4	82.1
Charleston, South Carolina.....	85.1	74.8	10.3	41 4	80.3
Chicago, Illinois.....	66.2	52.3	13.9	7 6	64.1
Cincinnati, Ohio.....	80	70	10.0	5 6	70.6
Cleveland, Ohio.....	72.0	57.3	14.7	14 0	67.3
Detroit, Michigan.....	68	56	12.0	23 11	67.9
Delaware Breakwater, Delaware.....	70.8	61.0	9.8	9 7	69.0
Duluth, Minnesota.....	62.1	43.5	18.6	14 7	59.4
Eastport, Maine.....	46.1	40.7	5.4	15 5	57.5
Escanaba, Michigan.....	64.3	47.0	17.3	15 0	59.4
Galveston, Texas.....	88	79	9.0	12 8	82.9
Grand Haven, Michigan.....	75.3	63.2	12.1	19 0	62.1
Indianola, Texas.....	87.5	80.4	7.1	8 3	82.1
Jacksonville, Florida.....	87.5	78.0	9.5	18 0	80.9
Jacksonville, Florida.....	89.0	82.3	6.7	16 11	83.8
Key West, Florida.....	61.7	42.4	19.3	13 0	58.9
Mackinaw City, Michigan.....	51	44	7.0	9 10	57.3
Marquette, Michigan.....	64.4	45.6	18.8	8 0	62.1
Milwaukee, Wisconsin.....	86	70	10.0	10 11	81.3
Mobile, Alabama.....	74.7	62.5	12.2	15 2	68.3
New Haven, Connecticut.....	71.5	61.5	10.0	17 1	69.5
New York City.....	80.6	70.0	10.6	19 9	76.9
Norfolk, Virginia.....	83.5	75.4	8.1	17 9	80.1
Pensacola, Florida.....	58.5	46.0	12.5	18 2	66.4
Portland, Maine.....	71.5	59	12.5	14 0	66.7
Provincetown, Massachusetts.....	71.0	81.6	9.4	11 0	.....
Punta Rassa, Florida.....	59.6	56.2	3.4	1 7	70.3
Sandy Hook, New Jersey.....	64.5	56.5	8.0	29 9	59.9
San Francisco, California.....	84.8	75.0	9.2	12 0	81.2
Savannah, Georgia.....	84	74	10.0	11 6	77.2
Smithville, North Carolina.....	76.7	60.6	16.1	11 6	69.7
Toledo, Ohio.....	81.8	72.4	9.4	18 6	73.6
Wilmington, North Carolina.....					

* A station discontinued on the 15th. † Observations incomplete. See text.

OPTICAL PHENOMENA.

SOLAR HALOS.

Solar halos have been observed in the various districts on the following dates:

New England.—8th, 9th, 15th, 16th, 18th, 27th, 29th.

Middle Atlantic states.—2d, 4th, 6th, 21st, 24th, 28th.

South Atlantic states.—3d, 4th, 7th, 10th, 21st, 22d, 24th.

Tennessee.—4th, 7th, 9th, 12th, 15th, 22d, 28th.

Ohio valley.—5th, 15th.

Lower lakes.—3d, 5th, 7th, 8th, 12th, 15th, 21st, 24th.

Upper lakes.—2d, 5th, 8th, 12th, 14th, 15th, 20th, 21st.

Extreme northwest.—2d, 3d, 4th, 7th.

Upper Mississippi valley.—1st, 2d, 4th, 6th, 8th, 12th to 16th, 20th, 23d, 24th, 25th, 28th.

Missouri valley.—3d, 4th, 6th, 7th, 11th, 14th, 16th, 23d, 27th, 28th.

Solar halos were also observed at the following stations not included in the districts named above: Lead Hill, Arkansas, 2d, 4th, 6th to 9th, 17th, 19th, 23d, 27th; Princeton, California, 5th; Sacramento, California, 8th, 17th; San Francisco, California, 8th, 17th; Visalia, California, 1st, 5th, 9th; Prescott,

Arizona, 7th, 9th; Pike's Peak, Colorado, 9th; Punta Rassa, Florida, 7th; Pensacola, Florida, 4th, 6th, 9th, 13th, 26th; Lewiston, Idaho, 1st, 5th, 8th; Albany, Oregon, 2d, 22d; Roseburg, Oregon, 2d, 8th, 18th, 22d; Carson City, Nevada, 17th; Indianola, Texas, 3d; Palestine, Texas, 1st, 2d; Bainbridge Island, Washington Territory, 1st, 2d.

LUNAR HALOS.

Lunar halos have been observed in the various districts on the following dates:

New England.—10th, 14th, 15th, 17th, 18th.

Middle Atlantic states.—9th, 10th, 12th, 14th to 18th, 24th.

South Atlantic states.—9th, 10th, 17th, 21st.

Eastern Gulf.—13th, 16th, 19th, 20th, 21st, 24th.

Western Gulf.—11th to 22d.

Tennessee.—12th, 16th, 20th, 22d, 24th.

Ohio valley.—11th, 15th, 16th, 17th, 20th, 22d, 23d.

Upper lakes.—11th, 14th, 15th, 16th, 18th, 19th, 20th.

Upper Mississippi valley.—14th to 17th.

Lunar halos were also reported from the following stations not included in the districts named above: Visalia, California, 17th; Fort Buford, Dakota, 13th; Sanford, Florida, 11th, 17th; Saint Vincent, Minnesota, 21st; Kiantone, New York, 16th; Albany, Oregon, 14th; Fort Concho, Texas, 12th, 13th.

MIRAGE.

San Francisco, California, 5th.—A beautiful mirage was observed on the bay at 6 p. m., the vessels and the land on the opposite shore assuming peculiar shapes. Small schooners in the northern part of the bay appeared very large, and the shipping and ferry-boats in the harbor appeared with inverted images, one above the other.

New York City, 13th.—On this date a very unusual phenomenon was observed in this city and vicinity. The hulls of vessels assumed prodigious proportions, at times appearing to rise above the hills beyond them. There were many startling changes in the appearance of the familiar Coney Island landscape. At one time the entire village appeared doubled, the buildings being reflected upside down.

Mirage was also observed at the following stations:

Traverse City, Michigan, 29th, 30th.

Indianola, Texas, 3d, 24th, 26th.

MISCELLANEOUS PHENOMENA.

SUN SPOTS.

The following record of sun spots for the month of June, 1883, has been forwarded by Mr. D. P. Todd, Director of the Lawrence Observatory, Amherst, Massachusetts:

Date— June, 1883.	No. of new		Disappeared by solar rotation.		Reappeared by solar rotation.		Total No. visible.		Remarks.
	Gr's	Spots	Gr's	Spots	Gr's	Spots	Gr's	Spots	
1, 9 a. m.	0	16†	0	0	1	0	2	20†	
2, 9 a. m.	1	5	0	0	1	2	3	25†	
4, 11 a. m.	1	25†	0	0	0	0	4	50†	
4, 4 p. m.	0	0	0	0	0	0	4	50†	
5, 12 m.	0	0	0	0	0	0	4	50†	
5, 6 p. m.	1	5	0	0	1	5	5	55†	
6, 12 m.	0	0	0	10†	0	0	5	45†	
8, 12 m.	1	10†	1	20†	1	10†	5	30†	
9, 10 a. m.	0	0	0	0	0	0	5	30†	
10, 12 m.	0	0	0	1	5	0	4	15†	
11, 6 p. m.	1	2	2	3	1	2	3	14†	
12, 12 m.	0	0	1	2	0	0	2	12†	
15, 2 p. m.	1	2	0	0	0	0	3	14†	
16, 9 a. m.	0	0	0	4	0	0	3	10†	
17, 12 m.	2	4	0	0	1	2	5	14†	
19, 5 p. m.	0	15†	1	5	0	0	4	25†	
20, 12 m.	0	15†	0	0	0	0	4	40†	
21, 12 m.	0	10†	0	0	0	0	4	50†	
22, 11 a. m.	1	3	0	10	1	3	5	40†	
23, 12 m.	0	5	0	5	0	5	4	40†	
24, 12 m.	1	7	1	5	0	5	4	40†	
25, 4 p. m.	2	10†	0	0	2	10†	6	50†	
26, 12 m.	0	0	0	5	0	0	5	40†	
28, 12 m.	0	10†	1	5	0	0	4	45†	Two of spots quite large.
29, 11 a. m.	0	5	0	0	0	0	4	50†	Do.
30, 9 a. m.	0	0	0	5	0	0	4	45†	Do.

Faculae were seen at the time of every observation. † Approximated.

Mr. H. D. Govey, at North Lewisburg, Ohio, reports that sun spots were observed on all clear days during the month.

They were most numerous on the 6th and 27th; least numerous on the 18th; largest on the 5th, and 29th; smallest on the 11th.

SUNSETS.

The characteristics of the sky, as indicative of fair or foul weather for the succeeding twenty-four hours, have been observed at all Signal-Service stations. Reports from one hundred and seventy-one stations show 4,786 observations to have been made, of which three were reported doubtful; of the remainder, 4,783, there were 4,002, or 83.7 per cent., followed by the expected weather.

METEORS.

Nashville, Tennessee.—At 10 p. m. of the 1st a bright meteor was observed to pass from the zenith toward the southwestern horizon, leaving a path of reddish-yellow color, which remained visible for twenty seconds.

Sussex, Wausheka county, Wisconsin.—At 9.15 p. m. of the 1st, a brilliant meteor—apparently larger than Venus—was observed in the southern sky; it moved slowly downward for a distance of 15° and disappeared.

Keokuk, Iowa, 5th.—At 6 p. m. of this date a brilliant meteor was seen in the southwestern sky, moving southeastward at an angle of about 45°. Although the sun was shining brightly, the meteor and its luminous path were plainly visible. No cloud was observed at its disappearance.

Washington, District of Columbia:—At 8:40 p. m. of the 27th, a meteor, remarkable for its brilliancy, passed from a point near the zenith toward the northern horizon. The color of the light produced strongly resembled that of the electric light and was sufficiently brilliant to cast clearly defined shadows.

Woodstock, Baltimore county, Maryland.—A meteor of unusual brilliancy was observed at this place at 8:30 p. m. of the 27th. It was visible for about eight seconds and moved directly northward from near the zenith toward the northern horizon.

Fallston, Harford county, Maryland.—At about 9:00 p. m. of the 27th, a meteor was observed to pass from a point near the zenith toward the northern horizon. It produced a brilliant light, making the smallest objects plainly visible. The meteor was observed by many persons in this locality, and was also seen in Baltimore, and at Sandy Springs, Montgomery county.

Variety Mills, Nelson county, Virginia.—A brilliant meteor was observed at this place on the 27th, at 8:45 p. m. It appeared in the northeastern sky and was apparently twice the size of Venus, and left behind it a trail of white light.

Mobile, Alabama.—At 8:45 p. m. of the 29th, a meteor appeared in the eastern sky at an elevation of about 15°, and passing northward, disappeared at an altitude of about 5°. Before disappearing the meteor separated into three distinct parts, which were much more brilliant than the meteor at its first appearing.

Meteors of less brilliancy were reported to have been observed during the month, as follows:

- 2d.—Logansport, Indiana, during the early morning.
- 3d.—Stateburg, South Carolina; Lead Hill, Arkansas; Yuma, Arizona.
- 4th.—Toledo, Ohio; Polo, Illinois; Visalia, California.
- 5th.—Rowe, Massachusetts.
- 6th.—Beloit, Wisconsin.
- 7th.—Visalia, California.
- 9th and 10th.—Clear Creek, Nebraska.
- 11th.—Bordentown, New Jersey.
- 12th.—Visalia, California; Rowe, Massachusetts.
- 13th.—Davenport, Iowa.
- 14th.—Williamstown, Massachusetts; Lead Hill, Arkansas.
- 19th.—Memphis, Tennessee.
- 20th.—Genoa, Nebraska; Memphis, Tennessee.
- 21st.—Saint Vincent, Minnesota.
- 22d and 23d.—Griffin station, Indiana.

- 24th.—Fort Scott, Kansas.
- 26th.—Yates Centre, Kansas.
- 27th.—Salina, Kansas.
- 28th.—Murfreesboro, Tennessee.
- 29th.—Fort Scott, Kansas; Salina, Kansas; Green Springs, Alabama.
- 30th.—Boston, Massachusetts; Salina, Kansas.

EARTHQUAKES.

The following notes upon earthquakes have been furnished by Professor C. G. Rockwood of Princeton, New Jersey:

Panama, United States of Colombia, July 5th.—At daylight on June 3, 1883, a strong and somewhat prolonged earthquake was experienced at Callao, Peru; it did no damage, although it caused much alarm among the townspeople. At 1.30 a. m. of the same date a much slighter movement was felt in Lima.

Panama, June 23d.—The volcano of Ometpe, in Lake Nicaragua, is at present in eruption, much to the alarm of the residents on the island which is formed by it. On May 1st, at 10 a. m., a frightful and terrifying subterranean rumbling was heard, which lasted between two and three minutes, but no outbreak was visible. On the following day a number of people climbed to the summit of the volcano to find that the crater had increased in size and was about thirty-five yards in length and three yards in width, but its depth could not be calculated. Around it were strewn large quantities of stones and rock covered with slate-colored mud, and ashes were scattered in all directions.

Two days afterwards, on May 4th, a series of terrifying eruptions, accompanied by a prolonged rumbling, occurred. About 2.30 p. m., the earth and rock in the vicinity of the crater were seen to break, lava flowed forth, and from it there burst up a thick column of lead colored smoke, which sent the terrified villagers flying to the churches in the belief that the whole island was about to be destroyed. No damage, however, was done.

The valley of the Altrato, situated in the state of Cauca, in this republic, continues a centre of that volcanic activity first evinced there in September of last year.

At Rio Sucio, about forty miles from the Atlantic, the earth cracked and opened in many places, throwing out very fine sand in a heated state, while a subterranean noise was heard.

At Turbo, on the gulf of Uraba, the earth opened and water flowed out, flooding the streets to a depth of two feet. Many houses were shaken down. The small villages of Bujies and Nicurio have been completely engulfed. The mouth of the river Leon, which emptied into the Atlantic, has completely closed up, and all over the district, the movement of the earth is so continuous that the inhabitants are immigrating.

On the 21st, at 7 a. m. a slight earthquake was felt at Mompos, on the river Magdalena, in the state of Bolivar, which was followed by a sharper one at 2.00 a. m. of the 22d, on which day shocks were also felt at San Salvador and Guayaquil.

WATER-SPOUTS.

The "Marine Record" (published in Cleveland, Ohio,) of June 23, 1883, reports that three water-spouts were recently observed southeast of Turtle light. Within thirty minutes, the water was observed to take a whirling motion at three different points and was quickly sucked up, appearing like a light smoke from the stack of a steamer. The water-spout assumed the shape of an inverted cornucopia and were apparently one-fourth mile in height. They were carried along with great force, rotating rapidly, until striking the clouds, when they disappeared. The tug "Farragut" reported that these water-spouts possessed marked peculiarities and differed widely from any ever before observed.

Sanford, Florida: at 4 p. m. of the 13th, a water-spout of about one hundred feet in height was observed on Lake Monroe. It moved in a westerly direction for several hundred yards, when it suddenly disappeared.

The schooner "Jennie N. Huddell" saw a large water-spout

in latitude N. 35° 35', longitude W. 75° 15', at 5.10 a. m. of the 25th.

SAND-STORMS.

Fort Thomas, Arizona, 8th, 9th, 15th, 28th.
Yuma, Arizona, 10th.
Turlock, California, 30th.
Lewiston, Idaho, 4th.

POLAR BANDS.

Lead Hill, Arkansas, 11th, 20th, 25th, 27th, 30th.
Riley, Illinois, 19th.
Wabash, Indiana, 19th.
Salina, Kansas, 5th, 15th.
Saint Louis, Missouri, 8th.
Clear Creek, Nebraska.
Vineland, New Jersey, 2d.
Charleston, South Carolina, 10th.
Nashville, Tennessee, 15th, 23d.
Woodstock, Vermont, 29th.
Cape Henry, Virginia, 1st.
Wytheville, Virginia, 4th, 17th, 21st.

ZODIACAL LIGHT.

Prescott, Arizona, 1st to 7th, 26th, 27th, 28th.
Pensacola, Florida, 30th.

Wabash, Indiana, 5th.
Elk Falls, Kansas, 1st 10th.
Cambridge, Massachusetts, 2d.
Vicksburg, Mississippi, 17th.
Dyberry, Pennsylvania, 23d.
Nashville, Tennessee, 1st, 2d, 3d, 26th, 27th, 28th.

PRAIRIE AND FOREST FIRES.

Prescott, Arizona, 4th to 9th, 21st to 24th.
Yankton, Dakota, 7th, 30th.
Salt Lake City, Utah, 26th.

DROUGHT.

Bismarek, Dakota, 30th.—Crops are suffering from drought.
Barnwell, Barnwell county, South Carolina, 7th.—During the last six weeks but little rain fell in this locality, but the rain of this date greatly improved the crop prospects.
Livermore, Alameda county, California.—During the past week the weather has been excessively warm, which has proved very damaging to the grain crop. Much grain has been cut to be used as hay.

NOTES AND EXTRACTS.

The following meteorological summary and table are taken from the June report of the "Tennessee Weather Service":

Abstract of meteorological observations for the month of June, 1883, as reported to the Bureau of Agriculture, &c., of Tennessee, by voluntary observers in co-operation with General W. B. Hazen, Chief Signal Officer, U. S. A.

County.	Station.	Latitude north.	Longitude west of Washington.	Temperature.						Wind.		Number of days—											On which rain fell, including hail, snow, and sleet.	Total rainfall, including hail, snow, and sleet (in inches).	Observers.					
				Mean of 7 a. m.	Mean of 2 p. m.	Mean of 9 p. m.	Average monthly.	Highest.	Date.	Lowest.	Date.	Prevailing direction.	Greatest force.	Scale 0 to 10.	Date.	Clear.	Fair.	Cloudy.	Auroras.	Dew.	Fog.	Frost.				Lunar halos.	Solar halos.	Hail-storms.	Thunder-storms.	
Anderson	Andersonville	36 4	8 5	61	81	71	71	90	17	52	1	se.	br.	2	17	11	.....	2	6	.....	.....	.....	.....	.....	.....	1	12	5.22	J. K. P. Wallace.
Bedford	Flat Creek	35 30	9 40	71	81	70	73	89	23	59	1	sw.	h.	24	.....	26	4	.....	23	4	.....	.....	.....	.....	.....	16	15	6.34	William Hart.
Blount	Maryville, 960 ft.	35 45	7 00	71	79	72	75	91	18	56	1	w.	h.	4	3	15	12	.....	.....	6	.....	.....	.....	.....	.....	2	9	5.14	W. H. Henry.
Bradley	Grief	35 11	7 42	69	84	71	74	92	30	59	1	s.	br.	22	1	21	8	.....	.....	2	.....	.....	.....	.....	.....	.....	7	5.34	J. T. Cowden.
Campbell	Caryville	36 00	7 30	66	78	67	70	85	12	51	1	w.	br.	5	2	11	17	.....	.....	7	.....	.....	.....	.....	.....	.....	10	4.74	Fletcher Smith.
Carroll	McKenzie, 815 ft.	36 10	11 30	74	89	75	79	94	17	65	1	sw.	br.	5	21	15	5	10	.....	14	.....	.....	.....	.....	.....	3	8	3.65	John Brown.
Cheatham	Kingston Springs	36 10	10 04	73	83	75	77	91	24	52	1	sw.	h.	9	6	17	7	.....	.....	11	4	.....	1	.....	.....	2	14	4.41	W. J. Inman.
Coffee	Beech Grove, 1,050 ft.	35 30	9 06	64	81	71	72	88	23	58	27	se.	h.	24	10	8	11	.....	.....	2	.....	.....	.....	.....	.....	1	13	4.83	B. F. Cheatham.
Coffee	Manchester	35 20	9 04	60	82	70	73	89	24	54	1	sw.	h.	10	2	14	14	.....	.....	3	.....	.....	.....	.....	.....	.....	11	6.52	Wiley Hickerson.
Cumberland	Grassy Cove	36 00	8 00	61	74	64	65	86	16	57	1	s.	l.	.....	7	15	8	.....	.....	5	.....	.....	.....	.....	.....	7	9	4.39	Nettie M. Stratton.
Crockett	Gadsden	35 45	12 00	.....	.....	.....	.....	.....	.....	.....	.....	nw.	h.	21	6	16	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	3.98	M. T. Moore, (27 d's)
DeKalb	Smithville	35 50	8 40	69	80	77	75	86	18	61	1	sw.	br.	4	6	11	13	6	.....	1	.....	.....	.....	.....	.....	2	10	4.00	P. C. Blum.
Dickson	White Bluff	36 10	10 04	73	85	70	76	90	30	60	9	s.	h.	15	14	7	9	.....	.....	4	.....	.....	.....	.....	.....	.....	8	4.40	Prof. McMillan.
Dyer	Dyersburg	36 15	12 20	71	83	71	75	90	16	58	1	s.	br.	17	6	5	19	.....	.....	18	.....	.....	.....	.....	.....	.....	13	4.76	L. Hughes.
Gibson	Trenton	35 58	11 58	69	81	71	74	88	30	61	14	sw.	h.	8	22	3	21	6	5	4	10	12	A. S. Currey.
Gibson	Milan, 440 ft.	35 55	11 47	69	82	72	74	93	16	50	1	s.	br.	5	21	11	11	8	.....	20	.....	.....	.....	.....	.....	.....	16	4.58	M. D. L. Jordan.
Giles	Pulaski	35 15	10 00	72	83	73	76	93	24	58	1	.....	br.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13	6.08	Prof. W. T. Mann.
Greene	Greenville	36 10	7 49	70	82	75	75	89	15	55	1	sw.	br.	.....	16	7	7	.....	.....	2	.....	.....	.....	.....	.....	.....	7	4.50	E. Link.
Hawkins	Rogersville	36 22	5 57	69	80	69	73	87	12	62	1	sw.	h.	4	25	4	12	14	.....	1	.....	.....	.....	.....	.....	3	12	5.89	Thos. F. Walker.
Hardeman	Bolivar	35 18	12 00	70	83	77	77	90	17	59	1	s.	br.	22	14	8	8	.....	.....	1	.....	.....	.....	.....	.....	.....	11	4.15	E. P. McNeal.
Hardin	Savannah	35 20	11 40	65	78	68	70	91	24	53	1	sw.	h.	6	22	17	5	8	.....	19	3	.....	.....	.....	.....	.....	9	6.08	H. B. Hinkle.
Haywood	Brownsville	35 36	12 20	.....	.....	.....	78	97	18	53	1	w.	.....	.....	18	.....	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	11	6.42	Daniel Bond.
Henry	Paris	36 33	11 25	71	73	72	72	84	24	63	1	sw.	h.	23	8	10	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	1.83	J. J. Travis.
Humphreys	Waverly	36 00	10 45	68	78	77	74	86	17	52	1	sw.	.....	.....	3	11	16	.....	.....	16	.....	.....	.....	.....	.....	.....	9	3.03	D. R. Owen.
Lincoln	Howell	35 15	9 30	70	83	70	75	91	24	60	1	s.	br.	21	.....	9	21	.....	.....	8	.....	.....	.....	.....	.....	.....	15	0.03	O. R. Hatcher.
Lauderdale	Flippin	35 45	12 30	72	81	76	76	92	24	63	11	s.	h.	22	3	14	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	.....	W. P. H. Butler.
Marion	Fostoria, 1,200 ft.	35 10	8 50	63	80	64	69	85	16	48	1	w.	h.	12	19	.....	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	11	.....	Charles Foster.
Maury	Hardison's Mills	36 00	10 00	70	79	72	73	90	17	58	1	sw.	.....	.....	4	10	16	.....	.....	3	.....	.....	.....	.....	.....	.....	14	7.52	Calvin Hardison.
McMinn	Chuckaluck	35 30	7 30	63	83	71	72	92	19	47	1	w.	br.	12	16	2	12	.....	.....	1	.....	.....	.....	.....	.....	.....	8	3.79	Jacob Zeigler.
McNairy	McNairy Station	35 00	12 00	75	86	76	79	92	16	68	2	s.	h.	21	8	12	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	2.25	J. H. Blakely.
Montgomery	Sailor's Rest	36 24	10 35	.....	.....	.....	.....	.....	.....	.....	.....	s.	.....	.....	4	12	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	3.70	John Minor.
Overton	Livingston, 966 ft.	36 23	8 17	69	80	69	70	83	24	57	1	sw.	br.	.....	8	8	9	.....	.....	13	.....	.....	.....	.....	.....	.....	10	3.90	J. Laughlin, (26 d's)
Polk	Benton, 880 ft.	35 12	7 45	71	72	71	71	96	23	55	1	sw.	br.	8	20	12	17	10	7	3.59	Jim Hood.
Rutherford	Florence Station	35 53	9 36	71	85	72	76	93	24	52	1	sw.	.....	.....	7	11	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	7.08	C. F. Vandeford.
Rhea	Grand View, 1,635 ft.	35 45	7 48	67	78	66	70	88	18	57	1	sw.	h.	8	20	9	11	10	.....	25	5	.....	2	.....	.....	4	9	3.72	Hattie R. Stratton.
Smith	Near Alexandria	35 30	8 56	75	73	74	74	90	18	60	1	s.	h.	18	3	2	25	.....	.....	13	.....	.....	.....	.....	.....	.....	12	8.32	Irene Beckwith.
Smith	Riddletown	36 19	9 07	70	81	72	74	92	23	55	1	sw.	h.	20	3	16	11	6	5	17	6.82	S. P. Furgusson.
Tipton	Covington	35 30	12 38	74	83	71	74	92	19	59	1	s.	.....	.....	15	5	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	4.05	T. W. Roane.
Williamson	Franklin	36 00	10 00	70	81	73	75	89	24	54	1	s.	br.	.....	3	8	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	4.31	Samuel Henderson.
Warren	McMinnville	35 45	8 45	74	83	78	78	84	17	62	1	s.	.....	.....	10	11	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	1.29	B. W. Sparks.

Mean temperature, 73°.
Highest temperature, 97°, on the 18th at Brownsville.
Lowest temperature, 47°, on the 1st at Chuckaluck.
Range of temperature, 50°.
Mean daily range of temperature, 16° 66.
Greatest daily range of temperature, 34°, on the 1st at Fostoria.

Least daily range of temperature, 1°, on the 7th at Hardison's Mills, and on the 10th at Kingston Springs.
Mean depth of rain or melted snow, 4.77 inches.
Greatest depth of rain or melted snow, 8.32 inches at Alexandria.
Least depth of rain or melted snow, 1.29 inches at McMinnville.
Average number of clear days, 7½.